

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Judith I. Glassock

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Title: RELEASE SHEET FOR USE WITH MULTICOMPONENT REACTIVE  
URETHANE SYSTEMS AND METHOD OF MANUFACTURE

**BOX PATENT APPLICATION**

Assistant Commissioner of Patents

Washington, DC 20231

**PRELIMINARY AMENDMENT**

Prior to examination, please amend the application as follows:

In the claims:

Please cancel claims 1-26.

Please amend claim 27 as follows:

27. (Amended) A method of manufacturing a release sheet for use in replicative casting of curable systems comprising:

a) applying an acrylic functional coating layer to a substrate constructed to function as a temporary mold during casting of a curable material;

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- b) pressing the coated side of the substrate against a replicative surface including a desired surface effect to cause the acrylic functional coating layer to conform with the replicative surface;
- c) curing the acrylic functional coating layer so that the acrylic functional coating layer includes a mirror image of the desired surface effect to be replicated during casting;
- d) stripping the cured coated substrate from the replicative surface;
- e) applying a silicone release coating layer on an exposed surface of the acrylic functional coating layer; and
- f) curing the silicone release coating layer.

Please add the following claims 33-43.

- 33. (New) The method of claim 27 wherein the acrylic functional coating layer comprises an acrylated oligomer and a monomer selected from the group consisting of monofunctional acrylates, multifunctional acrylates and mixtures thereof.
- 34. (New) The method of claim 33 wherein the silicone release coating layer comprises 90 parts or less polyvinyl alcohol, 100 parts or less of a complex reactive organofunctional siloxane release modifier, 90 parts or less of a reactive organofunctional siloxane emulsion coating, 10 to 20 parts of a catalyst selected from a group consisting of platinum complex and tin complex, and 2 to 12 parts of a nonionic surface wetting agent containing polyoxyethylene groups.
- 35. (New) The method of claim 34 wherein the catalyst is a platinum complex catalyst.

36. (New) The method of claim 27 wherein the silicone release coating layer comprises 70 parts or less polyvinyl alcohol, 50 to 90 parts of a complex reactive organofunctional siloxane release modifier, 50 parts or less of a reactive organofunctional siloxane emulsion coating, and 4 to 8 parts of a silicone glycol copolymer wetting agent.

37. (New) A method of manufacturing a release sheet for use in replicative casting of curable systems comprising:

a) applying an acrylic functional coating layer to a substrate constructed to function as a temporary mold during casting of a curable material, the acrylic functional coating layer comprising 10 to 50 parts of an acrylated oligomer, 20 to 60 parts of a monofunctional monomer, 20 to 60 parts of a multifunctional monomer, selected from the group consisting of TMPTA, TPGDA, and mixtures thereof, and an aminofunctional siloxane release agent at 2% or less by total weight of the coating;

b) pressing the coated side of the substrate against a replicative surface including a desired surface effect to cause the acrylic functional coating layer to conform with the replicative surface;

c) curing the acrylic functional coating layer so that the acrylic functional coating layer includes a mirror image of the desired surface effect to be replicated during casting;

d) stripping the cured coated substrate from the replicative surface;

e) applying a silicone release coating layer on an exposed surface of the acrylic functional coating layer; and

f) curing the silicone release coating layer.

38. (New) The method of claim 37 wherein the silicone release coating layer comprises 90 parts or less polyvinyl alcohol, 100 parts or less of a complex reactive organofunctional siloxane release modifier, 90 parts or less of a reactive organofunctional siloxane emulsion coating, 10 to 20 parts of a catalyst

selected from the group consisting of platinum complex and tin complex, and 2 to 12 parts of a nonionic surface wetting agent containing polyoxyethylene groups.

39. (New) The method of claim 38 wherein the catalyst is a platinum complex catalyst.

40. (New) The method of claim 37 wherein the silicone release coating layer comprises 70 parts or less polyvinyl alcohol, 50 to 90 parts of a complex reactive organofunctional siloxane release modifier, 50 parts or less of a reactive organofunctional siloxane emulsion coating, and 4 to 8 parts of a silicone glycol copolymer wetting agent.

41. (New) The method of claim 27 or 37 wherein the acrylic functional coating layer is applied in an amount so that after curing the acrylic functional coating layer has a coat weight of about 35 to 85 g/m<sup>2</sup>.

42. (New) The method of claim 27 or 37 wherein the silicone release coating layer is applied in an amount so that after curing the silicone release coating layer has a coat weight of less than about 4.0 g/m<sup>2</sup>.

43. (New) The method of claim 27 or 37 wherein surface continuity of the silicone release coating layer is maintained.

**REMARKS**


The claims have been amended to place them in better condition for examination.

Applicant submits that all of the claims are now in condition for examination, which action is requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made**".

No additional fees are believed to be due in connection with the filing of this Response. However, please charge any necessary fees in connection with this Response to Deposit Account No. 23-0470, referencing the Attorney Docket number shown above.

Respectfully Submitted,

  
Briana K. O'Regan  
Reg. No. 40,109

Date: Oct 31, 2001



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**"Version with Markings to Show Changes Made"**

**In the claims:**

Claims 1-26 have been cancelled.

Claim 27 has been amended as follows:

27. (Amended) A method of manufacturing a release sheet [providing a desired surface effect] for use in replicative casting of curable systems comprising:

- a) applying an acrylic functional coating layer to a substrate constructed to function as a temporary mold during casting of a curable material;
- b) pressing the coated side of the substrate against a replicative surface including a desired surface effect to cause the acrylic functional coating layer to conform with the replicative surface;
- c) curing the acrylic functional coating layer so that the acrylic functional coating layer includes a mirror image of the desired surface effect to be replicated during casting;
- d) stripping the cured coated substrate from the replicative surface;
- e) applying a silicone release coating layer on an exposed surface of the acrylic functional coating layer; and
- f) curing the silicone release coating layer.